

Device Modeling Report

COMPONENTS: RESISTOR
PART NUMBER: ERF5AJ471
MANUFACTURER: MATSUSHITA



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

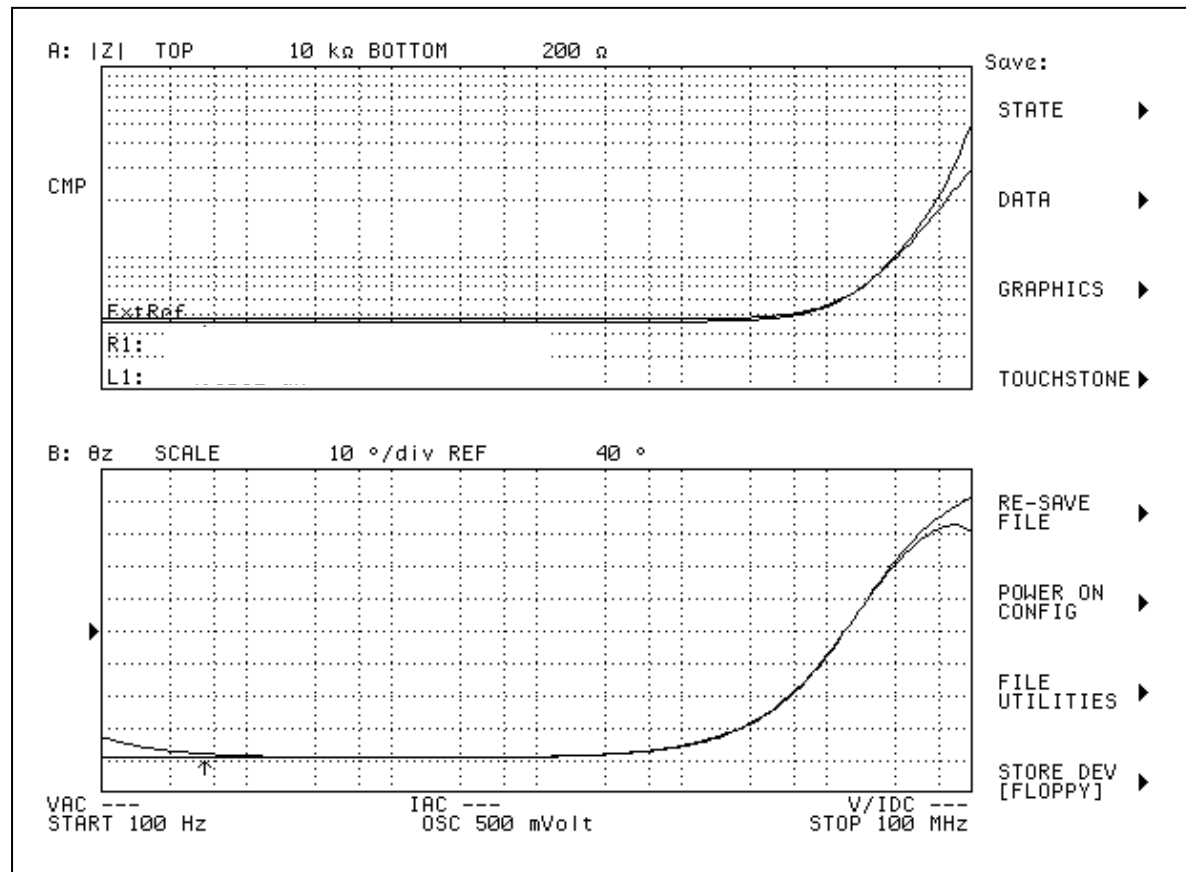
Optimization of Simulation

Range of adjustment Frequency: 100 to 100M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θz Characteristic

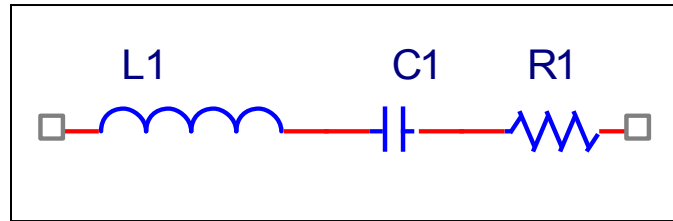
Attention

Please use SPICE MODEL within the range from 100 to 100M(Hz)



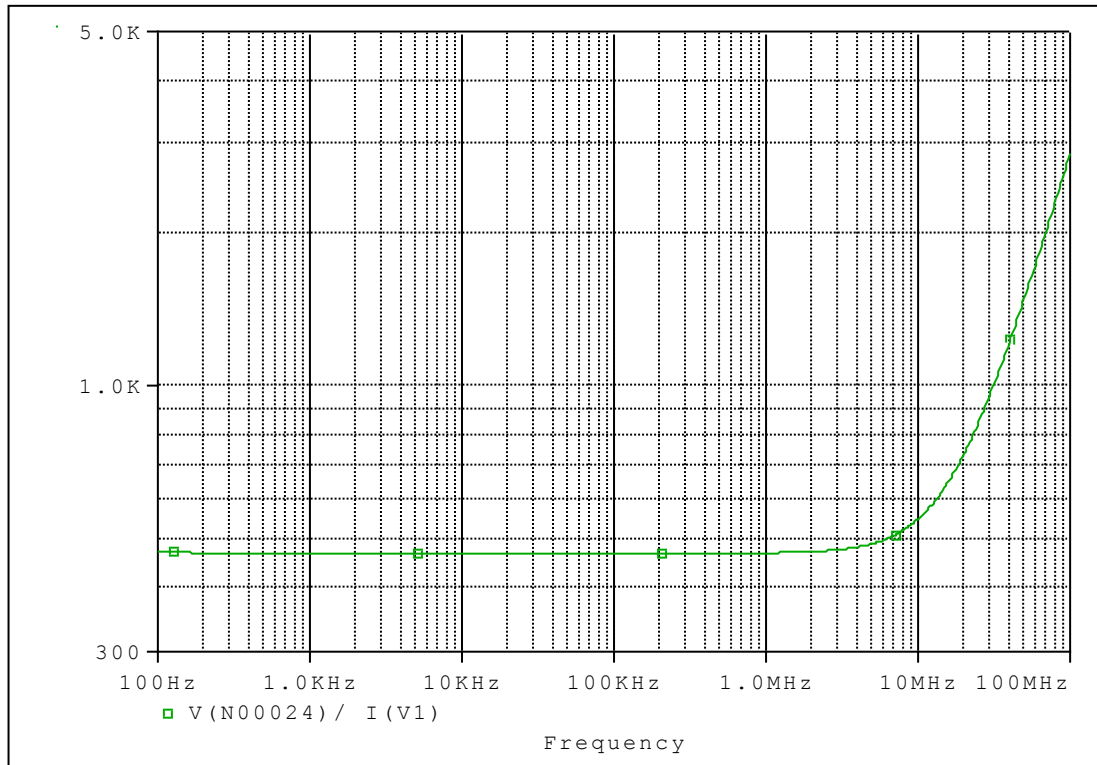
Measurement		
R1		
L1		
C1		

Equivalent circuit

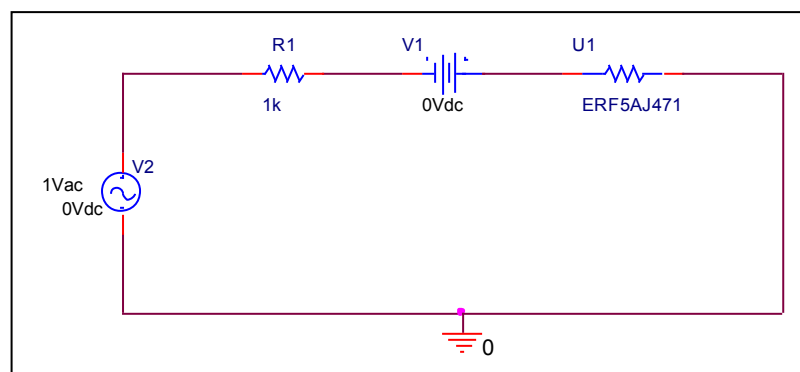


Frequency vs. $|Z|$ Characteristic

Circuit simulation result



Evaluation Circuit



Simulation Result

Frequency(HZ)	 Z (ohm) Measurement	 Z (ohm) Circuit Simulation	%Error
100	451.227	472.248	4.659
1K	453.180	468.918	3.473
10K	451.221	468.885	3.915
100K	451.149	468.893	3.933
1M	453.180	469.738	3.654
10M	541.772	547.705	1.095